

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Cancelled)
2. (Currently Amended) ~~The microwave tube according to claim 1,~~ A microwave tube for generation of an electromagnetic wave with frequency F, the microwave tube comprising: mechanical means for varying the frequency F wherein said mechanical means are composed of:

a set of rings defining a periodic structure inside the tube; and

mechanical means for displacing said rings with respect to each other while maintaining a periodicity for the periodic structure during displacement of the rings, wherein the mechanical means for displacing the rings comprises:

a set of electrical contacts between rings;

at least one lead screw;

a set of nuts installed on the lead screw; and

a set of rods, each rod firmly connecting a nut to a ring, the tube being provided with at least one slit enabling the set of rods to pass in the wall of the tube, the lead screw comprising several sectors with different pitches capable of keeping intervals between the rings during rotation of the lead screw.
3. (Currently Amended) ~~A microwave tube according to claim 1,~~ A microwave tube for generation of an electromagnetic wave with frequency F, the microwave tube comprising:

mechanical means for varying the frequency F wherein said mechanical means are composed

of:

a set of rings defining a periodic structure inside the tube; and

mechanical means for displacing said rings with respect to each other while maintaining

a periodicity for the periodic structure during displacement of the rings, wherein the

mechanical means for displacing the rings comprises:

a set of electrical contacts between the rings; and

one set of pins, each pin of said one set of pins respectively being firmly connected

to a corresponding ring, the tube being provided with at least one longitudinal

slit through which each one of the pins can pass in the wall of the tube, a ring

external to the tube comprising a set of slits, each slit in the outer ring allowing

the passage of a corresponding pin, each slit in the set of slits having a different

inclination for each corresponding ring so as to maintain a periodicity for the

different rings during displacement of the rings.

4. (Cancelled)

5. (Currently Amended) ~~A microwave tube according to claim 1,~~ A microwave tube for

generation of an electromagnetic wave with frequency F, the microwave tube comprising:

mechanical means for varying the frequency F wherein said mechanical means are composed

of:

a set of rings defining a periodic structure inside the tube, wherein the periodic structure

of the microwave tube is made of corrugated plate; and

mechanical means for displacing said rings with respect to each other while maintaining a periodicity for the periodic structure during displacement of the rings.

6. (Currently Amended) ~~A microwave tube according to claim 1, further comprising A~~
microwave tube for generation of an electromagnetic wave with frequency F, the microwave
tube comprising:
mechanical means for varying the frequency F wherein said mechanical means are composed
of:
a set of rings defining a periodic structure inside the tube; and
mechanical means for displacing said rings with respect to each other while maintaining
a periodicity for the periodic structure during displacement of the rings; and
an insert with an adjustable length.